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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/688,338	
Applicant: Shintani	
Filed: October 17, 2003	
Title: APPARATUS AND METHOD FOR USE IN TELEVISION CHANNEL MAPPING	
Examiner: John Manning	
Group Art Unit: 2614	
Customer No.: 37123	
Conf. No.: 2276	

DECLARATION OF PETER RAE SHINTANI PURSUANT TO 37 C.F.R. 1.131

Hon. Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Peter Rae Shintani, declare as follows:

1. I am the sole inventor of the subject matter as variously described and claimed in U.S. Patent Application No. 10/688,338.

2. I am currently an employee and was employed at all times mentioned herein by Sony Electronics Inc, the assignee of U.S. Patent Application No. 10/688,338.

3. I am personally familiar with the circumstances of and timing of the invention of the subject matter claimed in the above-captioned patent application.

4. I am informed that claims 1-3, 7-10, 17-18 and 20 in the above-captioned patent application were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S.

Patent Application Publication No. 2004/0036811 (Ikeguchi). I am further informed that for purposes of 35 U.S.C. § 102(e), the effective date of the Ikeguchi reference is August 18, 2003.

5. I am informed that claims 4-6, 11-16 and 19 in the above-caption patent application were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0036811 (Ikeguchi). I am further informed that for purposes of 35 U.S.C. § 103(a), the effective date of the Ikeguchi reference is August 18, 2003.

6. Based on my personal knowledge, the invention recited in all of the pending claims in the above-captioned application was completely conceived before August 18, 2003.

7. Based on my personal knowledge, before August 18, 2003, the design of the invention was complete enough that I could have made the invention. At least prior to August 18, 2003, I recognized the inventive aspects of the claimed invention for use in television channel mapping and that the claimed invention would work for the intended purpose.

8. The invention was conceived and constructively reduced to practice in the United States of America, a NAFTA and WTO member country, and prior to the effective date of the Ikeguchi reference.

9. Exhibit A, submitted herewith, is a copy of an Invention Disclosure form signed by me bearing a date (blocked off) after conception of the invention that is prior to August 18, 2003. I note that the date is blocked off as pursuant to MPEP 715.07(II), and the blocked-off date is a date prior to August 18, 2003. Exhibit A shows that I conceived the subject matter claimed in the above-captioned patent application prior to August 18, 2003.

10. Exhibit A demonstrates reduction to practice of the invention as claimed in the pending claims 1-20. For example, the conception of claims 1-20 is demonstrated through Exhibit A at least on page 4, paragraph 2-3 stating in part:

> modify the auto program add feature ... to execute a selective autoprogram add for either the digital terrestrial or the digital cable systems. Furthermore ... the local cable system has a proprietary control system that allows the cable operator to seamlessly move the digital channels about in their cable system while remaining transparent to the user [for] the reassignment of digital cable channels ... select to do an autoprogram add for either digital cable or for digital terrestrial ... The receiver would then execute the appropriate autoprogram channel search. This will reduce the number of actual physical channels and modulation schemes that the TV receiver will have to check during an autoprogram search ... looking for familiar names in the digital streams ... the physical RF channel number is associated with the program, and this is typical amongst the analog terrestrial broadcasts ... identify a digital channel by the name of the channel rather than by the RF channel number ... monitoring the availability of the digital channels, in the background or even at night, and when a channel disappears, it can use this as a trigger to self-execute a digital cable autoprogram add.

Therefore, Exhibit A demonstrates a conception and completion of the invention prior to the August 18, 2003 effective date of the Ikeguchi reference.

11. Upon completion of the above-mentioned Invention Disclosure form, I submitted the Invention Disclosure form to the Intellectual Property Department of Sony Electronic Inc. The Intellectual Property Department of Sony Electronics Inc evaluated the Invention Disclosure form and forwarded the Invention Disclosure form to outside counsel prior to the effective date of the Ikeguchi reference. The outside counsel prepared the subject patent application with my help and the application was filed on October 17, 2003.

12. A diligent effort was made following the conception of the invention prior to August 18, 2003 to file the above-caption patent application, including my preparation of the Invention Disclosure form describing the invention following the conception of the invention, submitting the Invention Disclosure form to Intellectual Property Department

of Sony Electronics Inc for evaluation, the subsequent forwarding of the Invention Disclosure form to the outside counsel for drafting the above-caption patent application, and the preparation of the application by the outside counsel.

13. I participated in a conference call with the outside counsel prior to August 18, 2003 where the subject invention was fully described to the outside counsel in detail to allow the outside counsel to prepare the above-caption patent application. The above-caption patent application was prepared with my assistance and filed on October 17, 2003, only two months following the effective date of the Ikeguchi reference during which time the outside counsel was drafting the above-caption patent application with my assistance.

14. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patents issuing thereon, or any patent to which this Declaration is directed.

Feb 27, 06
Date

Peter Rae Shintani

Attachments: Exhibit A

EXHIBIT A

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Sony Confidential	INVENTION DISCLOSURE FORM	Sony Confidential

Note: Detailed instructions for completing this form can be found in Appendix V of Sony's Patent Guide for Beginners and Inventors.

I. IDENTIFICATION (IPD use only) IPD Case #: SOT5449

1a. Short Descriptive Title of the Invention:

Clear QAM Tuning Method

1b. Short Summary of the Invention:

An effective and efficient method to tune QAM signals without supplemental navigational information

2. Name of Responsible Patent Coordinator (if any):

Business Address:	Peter Shintani, 16450 West Bernardo Drive, San Diego CA 92127
Business Phone/Fax:	858 942-5502 /858 942-9200
Business Email Address:	peter.shintani@am.sony.com

3. Identify all persons who contributed to the present invention including persons from other Sony Divisions, Sony Japan and Outside Companies. Final determination of inventorship is a legal question which will be resolved at a later time.

(1)

Full Legal Name:	Peter Rae Shintani
Home Address:	15616 Bernardo Center Drive #8501 San Diego CA 92127
Citizenship:	Canada
Business Address (include mail drop):	16450 W Bernardo Drive, MZ7250 San Diego CA 92127
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Business Email Address:	peter.shintani@am.sony.com
Division / Company / Location:	VIA /Sony Electronics Inc /San Diego CA
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X Sony Employee Intern	Contractor/Consultant Temp Other:
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(2)

Full Legal Name:	
Home Address:	
Citizenship:	(If Japanese, please provide name in Kanji)

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Business Address (include mail drop):	
Business Phone/Fax:	/
Business Email Address:	
Division / Company / Location:	/ /
Budget Code:	
q Sony Employee q Intern	q Contractor/Consultant q Temp. q Other :
Manager's Name:	
Business Address:	
Business Phone/Fax:	/
Business Email Address:	

(3)

Full Legal Name:	
Home Address:	
Citizenship:	(If Japanese, please provide name in Kanji)
Business Address (include mail drop):	
Business Phone/Fax:	/
Business Email Address:	
Division / Company / Location:	/ /
Budget Code:	
q Sony Employee q Intern	q Contractor/Consultant q Temp. q Other :
Manager's Name:	
Business Address:	
Business Phone/Fax:	/
Business Email Address:	

(4)

Full Legal Name:	
Home Address:	
Citizenship:	(If Japanese, please provide name in Kanji)
Business Address (include mail drop):	
Business Phone/Fax:	/
Business Email Address:	
Division / Company / Location:	/ /
Budget Code:	
q Sony Employee q Intern	q Contractor/Consultant q Temp. q Other :
Manager's Name:	
Business Address:	
Business Phone/Fax:	/
Business Email Address:	

(Use Additional Inventors sheet if necessary)

II. BACKGROUND INFORMATION

1. Do you believe this invention was developed while working under or in the performance of experimental, developmental or research work called for by a Government Contract or upon the understanding that a Government Contract would be awarded?

x NO YES

2. Has your invention been disclosed to anyone outside of Sony in a speech, exhibit, presentation, product, product manual, report, lecture, trade show, technical article, publication or otherwise?
X NO YES

3. Is this invention related to any previous Sony Invention Disclosures of which you are aware (made by you or someone else)?
X NO YES

4. If you responded "YES" to any of questions 1-3, please explain below:

5. Name of product(s) or project(s) for which this invention was developed:

This idea would apply to any receiver than need to reacquire new channel lists in an efficient manner.

6. When do you expect a product incorporating this invention to be sold, offered for sale or shown to someone outside of Sony? (If a product or prototype has already been sold, offered for sale or shown, please identify the earliest date this happened.):

Earliest possible introduction would be [redacted]?

7. Has a working model of the invention been built and tested (or appropriate software been written)?
X NO YES: If yes, who has witnessed a demonstration, and when?

8. List below any patents, publications, articles, texts, products, etc. which describe technology similar to your invention including reference material which may be useful in understanding the background technology of your invention: (Include a copy of each item to IPD. Please include copies of all bibliographical information.)

Have not done a search

III. DESCRIPTION OF THE INVENTION

Provide a concise technical description of your invention in the format outlined below on the following pages.

1: Explain the problems, issues or needs which led to the invention, and explain how others have addressed these problems, issues or needs.
In an analog NTSC TV receiver, it may take several seconds to minutes to do an autoprogram scan of the available signals. As the number of available channels increases, the autoprogramming time will increase With the advent of digital terrestrial, due to the more complex nature of the digital signal, the time required to do an autoprogram increases dramatically. Furthermore, with the advent digital cable channels the autoprogramming time will increase even more.

PAGE 15/18 * RCVD AT 2/28/2006 7:49:42 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/11 * DNIS:2738300 * CSID:8585520095 * DURATION (mm-ss):05-48

2: Describe your invention in terms of how it solves the problems described in paragraph 1. Specifically identify the new or novel features of your invention. Describe the construction and operation of the invention including drawings (flow charts, schematics, block diagrams, mechanical drawings, photographs, etc.) You may attach documentation in the form of letters, memos, engineering notebook pages, etc. if available, or you may use as many invention disclosure data sheets as necessary. Be sure each page is signed, dated and witnessed.

Due to the all or nothing reception character of digital tv signals whether 8 VSB terrestrial or 64/256 QAM digital cable signals, it is very hard to perform a 100% perfect autoprogram. Previously, in the Sony terrestrial DTV receivers to alleviate this problem, a modified autoprogram feature was added. It was an autoprogram feature which only added channels. This way the subsequent autoprogram executions would only need to search the channels that were not in the TV set's channel map when doing an auto program add.

Here, the idea is to further modify the auto program add feature so that it would be even more flexible. In a digital cable ready receiver, typically there would also be a digital terrestrial receiver. Thus the auto add feature would be modified so that it would be able to execute a selective autoprogram add for either the digital terrestrial or the digital cable systems. Furthermore, since in a digital cable system, typically the local cable system has a proprietary control system that allows the cable operator to seamlessly move the digital channels about in their cable system while remaining transparent to the user, the reassignment of digital cable channels is likely to occur more frequently than with a terrestrial digital.

3: If there is more than one way to implement your invention, describe the "Best Mode" or your personal preference as to how to *best* implement, build, produce, or use your invention (e.g. preferred parts, materials, techniques, etc. which you feel are best in practicing your invention). Each submitter's opinion is important here, even if there is disagreement. Please list anything you think will make the invention better in any way.

One possible, but not the only method to implement the feature would be to either via the GUI menu of the tv receiver or by a direct entry key on the TV receiver and or its remote control, the user can request an autoprogram add which can be preformed for any of the modulation schemes, and or in any combination or with further modifiers, such as with which physical input connector of the TV.

Typically, a user would have two inputs to the TV, one for cable and one for terrestrial, however, in some cases the two can conceivably be combined prior to being fed to the tv. The user would select to do an autoprogram add for either digital cable or for digital terrestrial. The TV would then look at the previous user inputs to determine which input of the TV was connected to which signal source. The receiver would then execute the appropriate autoprogram channel search. This will reduce the number of actual physical channels and modulation schemes that the TV receiver will have to check during an autoprogram search.

Furthermore, the TV set can be made "smarter" by looking for familiar names in the digital streams. Most people identify a name of the channel rather than its physical location. In many cases, the physical RF channel number is associated with the program, and this is typical amongst the analog terrestrial broadcasts. However, in a cable tv channel, whether analog or digital, often the name of the channel is more commonly used to identify the channel. Thus it would be wise for the TV set to be able to identify a digital channel by the name of the channel rather than by the RF channel number. Thus when a digital channel add is executed the TV can be operated such that it does not present the RF channel number to the viewer, but instead present the digital channels name. If the TV is smart enough, it could be monitoring the availability of the digital channels, in the background or even at night, and when a channel disappears, it can use this as a trigger to self-execute a digital cable autoprogram add.

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4: Briefly describe any alternate uses, variations or modifications of your invention, if any, which you contemplate.

Signature of Submitter(s)			Read and understood by: Signatures of Witnesses (at least two witnesses preferred)		
[redacted]	Date [redacted]			Date	
	Date			Date	
	Date			Date	
	Date			Date	

[redacted] SONY CONFIDENTIAL and PROPRIETARY

Invention Disclosure Data Sheet

Signature of Submitter(s)				Read and understood by: Signatures of Witnesses (at least two witnesses preferred)			
	Date				Date		
	Date				Date		
	Date				Date		
	Date				Date		

[redacted] SONY CONFIDENTIAL and PROPRIETARY

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